OIPE JC16
JUL 21 2004
PATENT & TRADEMARK OFFICE

IFW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Karl A. Hanold, et al.

Examiner: Unknown

Application No.: 10/672,958

Art Group: 2881

Filed: September 24, 2003

For: MULTIPLE ION SOURCES INVOLVING ATMOSPHERIC PRESSURE PHOTOIONIZATION

INFORMATION DISCLOSURE STATEMENT

Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In accordance with Applicant's duty of disclosure under 37 CFR §1.56, and in accordance with 37 CFR §§1.97-1.98, Applicant submits the enclosed modified Form PTO/SB/08A. The above-referenced patent application was filed after June 30, 2003, therefore Applicant does not submit each cited U.S. patent and U.S. patent application publication, as allowed by the U.S.P.T.O. waiver of 37 CFR 1.98 (a)(2)(i).

It is hereby stated that this Information Disclosure Statement is being filed prior to the issuance of the initial Office Action, and therefore, no petition or fee is required. However, in the event a petition is needed for consideration of this Information Disclosure Statement, Applicant hereby so petitions. Please charge any fee due to Deposit Account No. 09-0946.

Respectfully submitted,

IRELL & MANELLA LLP

Dated: July 19, 2004

Ben Yorks, Reg. No. 33,609

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Suite 400
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Catherine M. Sanders — 7-19-2004 Date

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PTO/SB/21 (08-03)
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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	10/672,958
Filing Date	September 24, 2003
First Named Inventor	Karl A. Hanold
Art Unit	2881
Examiner Name	Unknown
Attorney Docket Number	155692-0034 (P002X2)

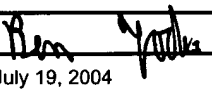
Total Number of Pages in This Submission

ENCLOSURES *(Check all that apply)*

- [x] Fee Transmittal Form
 - [] Fee Attached
- [] Amendment/Reply
 - [] After Final
 - [] Affidavits/declaration(s)
- [] Extension of Time Request
- [] Express Abandonment Request
- [x] Information Disclosure Statement
- [] Certified Copy of Priority Document(s)
- [] Response to Missing Parts/ Incomplete Application
 - [] Response to Missing Parts under 37 CFR 1.52 or 1.53
- [] Drawing(s)
- [] Licensing-related Papers
- [] Petition
- [] Petition to Convert to a Provisional Application
- [] Power of Attorney, Revocation Change of Correspondence Address
- [] Terminal Disclaimer
- [] Request for Refund
- [] CD, Number of CD(s) _____
- [] After Allowance communication to Technology Center (TC)
- [] Appeal Communication to Board of Appeals and Interferences
- [] Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- [] Proprietary Information
- [] Status Letter
- [x] Other Enclosure(s) (please Identify below):
 - Form SB/PTO/08 (3 pg)
 - 16 references
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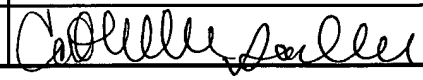
Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Ben J. Yorks
Signature	
Date	July 19, 2004

CERTIFICATE OF TRANSMISSION/MAILING

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Typed or printed name	Catherine M. Sanders		
Signature		Date	July 19, 2004

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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PTO/SB/17 (08-03)
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FEE TRANSMITTAL for FY 2003

Effective 01/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT ($) 0.00

Complete if Known	
Application Number	10/672,958
Filing Date	September 24, 2003
First Named Inventor	Karl A. Hanold
Examiner Name	Unknown
Art Unit	2881
Attorney Docket No.	155692-0034 (P002X2)

METHOD OF PAYMENT *(check all that apply)*

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☑ None

☐ Deposit Account:

Deposit Account Number: 09-0946

Deposit Account Name: Irell & Manella LLP

The Director is authorized to: *(check all that apply)*

☐ Charge fee(s) indicated below ☑ Credit any overpayments

☑ Charge any additional fee(s) during the pendency of this application

☐ Charge fee(s) indicated below, **except for the filing fee** to the above-identified deposit account.

FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
1001	750	2001	375	Utility filing fee	
1002	330	2002	165	Design filing fee	
1003	520	2003	260	Plant filing fee	
1004	750	2004	375	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1) ($) 0.00

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

	Extra Claims		Fee from below		Fee Paid
Total Claims		-20** =		X	=
Independent Claims		- 3** =		X	=
Multiple Dependent					=

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description
1202	18	2202	9	Claims in excess of 20
1201	84	2201	42	Independent claims in excess of 3
1203	280	2203	140	Multiple dependent claim, if not paid
1204	84	2204	42	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) ($) 0.00

***or number previously paid, if greater; For Reissues, see above*

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for *ex parte* reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	410	2252	205	Extension for reply within second month	
1253	930	2253	465	Extension for reply within third month	
1254	1,450	2254	725	Extension for reply within fourth month	
1255	1,970	2255	985	Extension for reply within fifth month	
1401	320	2401	160	Notice of Appeal	
1402	320	2402	160	Filing a brief in support of an appeal	
1403	280	2403	140	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,300	2453	650	Petition to revive - unintentional	
1501	1,300	2501	650	Utility issue fee (or reissue)	
1502	470	2502	235	Design issue fee	
1503	630	2503	315	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	750	2809	375	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	750	2810	375	For each additional invention to be examined (37 CFR 1.129(b))	
1801	750	2801	375	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) ($) 0.00

SUBMITTED BY				(Complete *(if applicable)*)	
Name (Print/Type)	Ben J. Yorks	*Registration No. (Attorney/Agent)*	33,609	*Telephone*	949-760-0991
Signature	Ben Yorks			*Date*	July 19, 2004

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JUL 21 2004
PATENT & TRADEMARK OFFICE

Form PTO/SB/08A (Modified)

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if known	
				Application Number	10/672,958
				Filing Date	September 24, 2003
				First Named Inventor	Karl A. Hanold
				Group Art Unit	2881
				Examiner Name	Unknown
Sheet	1	of	3	Attorney Docket Number	155692-0034 (P002X2)

U.S. PATENT DOCUMENTS

Examiner Initials	Cite No.	U.S. Patent Document Number	U.S. Patent Document Kind Code	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1.	5,854,431		Linker et al.	12-29-1998	
	2.	5,826,214		Lieb et al.	10-20-1998	
	3.	5,808,299		Syage	09-15-1998	
	4.	5,554,846		Regiec et al.	09-10-1996	
	5.	5,569,917		Buttrill, Jr. et al.	10-29-1996	
	6.	5,631,462		Reents, Jr.	05-20-1997	
	7.	5,504,328		Bonser	04-02-1996	
	8.	5,568,144		Chiao et al.	10-22-1996	
	9.	5,527,731		Yamamoto et al.	06-18-1996	
	10.	5,412,207		Micco et al.	05-02-1995	
	11.	5,393,979		Hsi	02-28-1995	
	12.	5,422,643		Chu et al.	06-06-1995	
	13.	5,343,488		Guyot et .	08-30-1994	
	14.	5,397,895		Leone et al.	03-14-1995	
	15.	5,311,016		Villa-Aleman	05-10-1994	
	16.	5,422,575		Ferrer et al.	06-06-1995	
	17.	5,381,006		Wells et al.	01-10-1995	
	18.	5,338,931		Spangler et al.	08-16-1994	
	19.	5,294,797		Frey et al.	03-15-1994	
	20.	5,469,323		Kanayama	11-21-1995	
	21.	5,630,221		Birleson	05-13-1997	
	22.	5,248,973		Babu et al.	09-28-1993	
	23.	5,198,816		Kalinowski et al.	03-30-1993	
	24.	5,068,658		Ohlsson et al.	11-26-1991	
	25.	5,289,529		Karnowski	02-22-1994	
	26.	5,070,240		Lee et al.	12-03-1991	
	27.	5,032,721		Bacon et al.	07-16-1991	
	28.	5,234,838		Bacon, Jr.	08-10-1993	
	29.	5,206,594		Zipf	04-27-1993	
	30.	5,283,436		Wang	02-01-1994	
	31.	4,931,640		Marshall et al.	06-05-1990	
	32.	5,153,672		Globig et al.	10-06-1992	
	33.	5,138,552		Weedon et al.	08-11-1992	
	34.	4,876,502		Verbanets et al.	10-24-1989	
	35.	4,855,594		Kimock et al.	08-08-1989	

Examiner: _____ **Date Considered:** _____

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO/SB/08A (Modified)

JUL 21 2004

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet	2	of	3

Complete if known	
Application Number	10/672,958
Filing Date	September 24, 2003
First Named Inventor	Karl A. Hanold
Group Art Unit	2881
Examiner Name	Unknown
Attorney Docket Number	155692-0034 (P002X2)

U.S. PATENT DOCUMENTS

	36.	4,780,608		Cross et al.	10-25-1988	
	37.	4,804,846		Hall	02-14-1989	
	38.	4,861,988		Henion et al.	08-29-1989	
	39.	4,849,628		McLuckey et al.	07-18-1989	
	40.	4,733,073		Becker et al.	03-22-1988	
	41.	4,540,884		Stafford et al.	09-10-1985	
	42.	4,365,157		Unsold et al.	12-21-1982	
	43.	3,555,272		Munson et al.	01-12-1971	
	44.	4,014,793		Tesarik et al.	03-29-1977	
	45.	4,517,850		Wiseman et al.	05-21-1985	
	46.	4,855,594		Kimock et al.	08-08-1989	

FOREIGN PATENT DOCUMENTS

Examiner Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Office	Number	Kind Code			

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	47.	Mahon, et al, "Third-Harmonic Generation in Argon, Krypton, and Xenon: Bandwidth Limitations in the Vicinity of Lyman-a", IEEE Journal of Quantum Electronics, VOL. QE-15, No. 6, June 1979, pp 444-451.
	48.	Rettner, et al, "Pulsed Free Jets: Novel Nonlinear Media for Generation of Vacuum Ultraviolet and Extreme Ultraviolet Radiation", The Journal of Physical Chemistry, Vol 88, No. 20, 1984, pp 4459-4465.
	49.	Tonkyn, et al, "Compact Vacuum Ultraviolet Source for Photoelectron Spectroscopy", Rev. Sci. Instrum. Volume 60, No. 7, July 1989, pp 1245-1251.
	50.	R. Wallenstein, "Generation of Narrowband Tunable VUV Radiation at the Lyman-a Wavelength", Optics Communications, Volume 33, No. 1, April 1980, pp 119-122.

Examiner: _____ **Date Considered:** _____

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO/SB/08A (Modified)

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				Filing Date	September 24, 2003
				First Named Inventor	Karl A. Hanold
				Group Art Unit	2881
				Examiner Name	Unknown
Sheet	3	of	3	Attorney Docket Number	155692-0034 (P002X2)

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
	51.	R. Hilbig, et al, "Tunable VUV Radiation Generated by Two-Photon Resonant Frequency Mixing in Xenon", IEEE Journal of Quantum Electronics, Volume QE-19, No. 2, February 1983, pp 194-201.
	52.	Jack A. Syage, "Real-Time Detection of Chemical Agents Using Molecular Beam Laser Mass Spectrometry", American Chemical Society, 1990.
	53.	David M. Lubman, "Lasers and Mass Spectrometry", Oxford University Press, 1990, pp 469-489.
	54.	Nesselrodt, et al., "Cyclic Ketone Mixture Analysis Using 2 + 1 Resonance-Enhanced Multiphoton Ionization Mass Spectrometry", Analytical Chemistry, Vol. 66, pp. 2497-2504, 1994.
	55.	R. Frey, et al. "Real-Time Vehicle Exhaust Analysis Using a Laser TOF Mass Spectrometer" Proc. 40t^{h} Anal. Conf. Mass Spectrom & Allied Topics, 1992, pp 678-679.
	56.	R. Tembreull, et al. "Pulsed Laser Desorption of Biological Molecules in Supersonic Beam Mass Spectrometry with Resonant Two-Photon Ionization Detection",
	57.	Steven M. Michael, "An Ion Trap Storage/Time-of-Flight Mass Spectrometer", Rev. Sci. Instrum., Vol. 63, No. 10, pages 4277-4284, October 1992.
	58.	Mark G. Qian et al, "A Hybrid Instrument That Combines TOF With The Ion Trap Yields Excellent Sensitivity For Small Samples", Analytical Chemistry, Vol. 67, No. 7, pp. 234-242, April 1, 1995.
	59.	E.R. Rohwer, R.C. Beavis,C. Koster, J. Lindner, J. Grotemeyer and E.W. Schlag, "Fast Pulsed Laser Induced Electron Generation for Electron Impact Mass Spectrometry", November 23, 1988, pgs. 1151-1153.
	60.	J.G. Boyle, L.D. Pfefferle, E.E. Gulcicek, S.D. Colson, "Laser-driven Electron Ionization for a VUV Photoionization Time-Of-Flight Mass Spectrometer", Rev. Sci. Instrum., Vol. 62, No. 2, pp. 323-333, February 1991.
	61.	P.Y. Cheng and H.L. Dai, "A Photoemitted Electron-Impact Ionization Method For Time-Of-Flight Mass Spectrometers", Rev. Sci. Instrum. Vol. 64, No. 8, pages 2211-2214, August 1993.
	62.	U. Boesl et al. "Laser Ion Sources For Time-Of-Flight Mass Spectrometry", Int. J. Mass Spectrom. Ion Processes 131 (1994) 87-124.

Examiner: _____ **Date Considered:** _____

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